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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,627	03/21/2001	Takashi Fujimaki	Q63651	4658

7590 02/07/2003

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2100 Pennsylvania Avenue NW
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EXAMINER

KUHNS, ALLAN R

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 02/07/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,627

Applicant(s)

FUJIMAKI ET AL.

Examiner

KUHN

Group Art Unit

1732

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-14 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-8 AND 10-14 is/are rejected.
- ☒ Claim(s) 9 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

Office Action Summary

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-8 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inokuchi et al. Inokuchi et al. disclose the basic claimed method of forming a foamed article including heating in an extruder a mixture comprising (a) 100 parts by weight of a linear saturated polyester, (b) 0.1 to 10 parts of a mixture as a coupling agent or polymerization promotor of 0 to 100% by weight of a compound having two epoxy groups in the molecule and 100 to 0% by weight of a compound having more than two epoxy groups in the molecule, and c) 0.01 to 5 parts by weight of a metal salt of a carboxylic acid (note column 6, line 44 to column 7, line 62), the heating being to a temperature greater than the melting point of the polyester to make a modified polyester having increased molecular weight, viscosity, and it is submitted, swell, introducing a foaming agent into the polyester resin and heat foaming the resin. Inokuchi et al. appear not to specify the metal salt of a carboxylic acid as a catalyst, but such would have been obvious to one of ordinary skill in the art based on its required presence in the foamable mass.

It is submitted that the mixture of Inokuchi et al. meets the swell and melt flow rate requirements of claim 1, based on the expressed purpose of enhancing the melt viscosity of the polyester by forming the instantly claimed mixture, as set forth in column 1 of Inokuchi et al.

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Inokuchi et al. teach the use of foaming agents of the type recited in claims 3-6 at column 8, lines 31-65. And suggests an expansion ratio within the range of claim 7. Inokuchi et al. teach the use of a polyethylene terephthalate-based polyester, as in claim 8 and the reaction of claim 12 is well known and its use would have been obvious to one of ordinary skill in the art in order to produce such polyester. Inokuchi et al. teach the ingredients of claim 10 at column 6, lines 44-68 and suggest the ingredients of claim 11 at column 6, line 42. Inokuchi et al. teach or suggest a polyester foamed article as in claim 14 and deaeration, as in claim 13, is well known and would have been obvious to one of ordinary skill in the art in order to remove unwanted volatile matter.

3. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (703) 308-3462. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino, can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Allan R. Kuhns

ALLAN R. KUHNS
PRIMARY EXAMINER AU 1732

2-4-03